



AMENDMENTS TO THE DRAWINGS:

Please amend FIG. 17A-C as shown in the enclosed marked-up copy labeled “Annotated Marked-up Drawings”, wherein the changes of “CRYCBB2” to --CRY3BB2-- in two places in FIG. 17A; “CRYS3BB2” to --CRY3BB2-- in FIG. 17B; and the additions of --(SEQ ID NO:109)--, --(SEQ ID NO:110)--, --(SEQ ID NO:111)--, --(SEQ ID NO:112)-- and --(SEQ ID NO:113)-- at the end of the sequences for CRY3C, CRY3BB2, CRY3BB, CRY3BA, and CRY3A, respectively, in FIG. 17C are shown in red. A replacement copy of FIG. 17A-C labeled “Replacement Sheet” is also provided as an appendix to this amendment.

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Replacement page

replacement pages 2 of 10, 3 of 10, and 7 of 10 to substitute for pages 2 of 10, 3 of 10, and 7 of 10 of the previous Response filed May 9, 2005.

REMARKS

This paper is filed in response to the Notice of Non-Compliant Amendment. It is believed that the response is filed timely and no fees are due at this time. However, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to the enclosed materials, the Commissioner is authorized to deduct said fees from Deposit Account No. 01-2508/11792.0218.DVUS01.

Respectfully submitted,



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REMARKS

Claim Status

The active claims in this case are claims 38-46. Each of claims 38 and 39 is amended to replace “comprising” with --wherein the method comprises-- as helpfully suggested by the Examiner. Claims 34, 36 and 37 are cancelled. As noted by the Examiner the amendments to claim 34 in the preliminary amendment dated 7 July 2003 were not properly marked. Applicants have therefore cancelled claim 34 (and dependant claims 36 and 37) and rewritten them as new claims 44-46. Claims 41-43 have been amended to recite “said gene encoding said modified Cry3Bb* polypeptide”. No new matter has been introduced into the claims.

Amendments to the Drawings and Specification

FIG. 17A-C and the specification at page 58, lines 1-6 have been amended to add sequence identifiers to the corresponding sequences that are referenced therein to fully comply with the sequence rules. Furthermore, FIG. 17A-C has been amended to correct a couple of typographic errors. No new matter is introduced.

Objections to Claims 34 and 38-39

Claim 34 was objected for the term “comprising”. In response, new claim 44 (which replaces claim 34) has been amended to include the phrase “wherein the method comprises” as helpfully suggested by the Examiner. Similarly, claims 38-39 were objected for the term “comprising”. In response, claims 38-39 have been amended to include the phrase “wherein the method comprises” as helpfully suggested by the Examiner.

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ALIGNMENT OF CRY3 SEQUENCES
(Numbered according to Cry3BB)
(alpha helices underlined, beta sheets marked with + + +'s)

	1	10	20	30	40
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CRY3C:	MNPNNRSEHDTIKATENNEVSNNHAQYPLADTP--TLEELNY
CRY3BB2	CRYCB2: MNPNNRSEHDTIKVTPNSELPTNHNQYPLADNPNSTLEELNY
CRY3BB:	MNPNNRSEHDTIKVTPNSELQTNHNQYPLADNPNSTLEELNY
CRY3BA:	MIRMGGRKMNPNNRSEHDTIKVTPNSELPTNHNQYPLADNPNSTLEELNY
CRY3A:	MIRKGGRKMNPNRSEHDTIKTTENNEVPTNHVQYPLAETPNPTLEDNY

	50	60	70	80	90
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CRY3C:	KEFLRRRTTDNNVEALDSSTTKDAIQKGISIIGDLLGVGVFPYGGALVSFY
CRY3BB2	CRYCB2: KEFLRMTED\$STEVLDSSTVKDAVGTGIVVGQILGVGVGPFAAGALTSFY
CRY3BB:	KEFLRMTEDSSTEVLDSSTVKDAVGTGIVVGQILGVGVGPFAAGALTSFY
CRY3BA:	KEFLRMTADNSTEVLDSSTVKDAVGTGIVVGQILGVGVGPFAAGALTSFY
CRY3A:	KEFLRMTADNNTEALDSSTTKDVIQKGISVVGDLGVGVFPFGALVSFY

	100	110	120	130	140
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CRY3C:	TNLLNTIWPGE-DPLKAFMQQVEALIDQKIADYAKDKATAELQGLKNVFK
CRY3BB2:	QSFLDTIWPSSDADPWKAFAKMAQVEVLIDKKIEEYAKSKALAELQGLQNNFE
CRY3BB:	QSFLNTIWPSSDADPWKAFAKMAQVEVLIDKKIEEYAKSKALAELQGLQNNFE
CRY3BA:	QSFLNAIWPSSDADPWKAFAKMAQVEVLIDKKIEEYAKSKALAELQGLQNNFE
CRY3A:	<u>TNFLNTIWPSE-DPWKAFAKMEQVEALMDQKIADYAKN</u> KALAELQGLQNNVE

	150	160	170	180	190
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CRY3C:	DYVSALDSWDKTPLTLRDGRSQGRIRELFSQAESHFRNSMPSFAVSGYEV
CRY3BB2:	DYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRNSMPSFAVSKFEV
CRY3BB:	DYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRNSMPSFAVSKFEV
CRY3BA:	DYVNALDSWKKAPVNLRSRRSQDRIRELFSQAESHFRNSMPSFAVSKFEV
CRY3A:	<u>DYVSALSSWQKNPVSSRNPHSQGRIRELFSQAESHFRNSMPSFAISGYEV</u>

FIG. 17A

	200	210	220	230	240
CRY3C:	LFLPTYAQAAANTHLLLLKDAQIYGTDWGYSTDDLNEFHTKQKDLTIEYTN				
CRY3BB2:	LFLPTYAQAAANTHLLLLKDAQVFGEEWGYSSVEDVAE FYHRQLKLTQQYTD				
CRY3BB:	LFLPTYAQAAANTHLLLLKDAQVFGEEWGYSSVEDVAE FYHRQLKLTQQYTD				
CRY3BA:	LFLPTYAQAAANTHLLLLKDAQVFGEEWGYSSEDIAE FYQRQLKLTQQYTD				
CRY3A:	<u>LFLTTYAQAAANTHLFLLKDAQIYGEEWGYEKEDIAE FYKRQLKLTQEYTD</u>				
	250	260	270	280	290
CRY3C:	HCAKWKAGLDKLRLGSTYEEWVKFNRYRREMTLTVDLITLFPYDVRTY				
CRY3BB2 CRY3BB:	HCVNWYNVGLNGLRGSTYDAWVKFNFRREMTLVLDLIVLFPYDVRLY				
CRY3BB:	HCVNWYNVGLNGLRGSTYDAWVKFNFRREMTLVLDLIVLFPYDIRLY				
CRY3BA:	HCVNWYNVGLNSLRGSTYDAWVKFNFRREMTLVLDLIVLFPYDVRLY				
CRY3A:	<u>HCVKWYNVGLDKLRLGSSYESWVNFNRYRREMTLVLDLIALFPYDVRLY</u>				
	300	310	320	330	340
CRY3C:	TKGVKTELTRDVLDPIAVVNNMNGYGTTSFSNIENYIRKPHLF DYLHAIQ				
CRY3BB2:	SKGVKTELTRDIFTDPIFSLNTLQEYGPFLSIENSIRKPHLF DYLQGIE				
CRY3BB:	SKGVKTELTRDIFTDPIFSLNTLQEYGPFLSIENSIRKPHLF DYLQGIE				
CRY3BA:	SKGVKTELTRDIFTDPIFTLNALQEYGPFTSSIENSIRKPHLF DYL RGIE				
CRY3A:	PKEVKTELTRDVLDPIVGVNNLRGYGTTS <u>FSNIENYIRKPHLF DYLHRIQ</u>				
	++++++				+++
	350	360	370	380	390
CRY3C:	FHSRLQPGYFGTDSFNYWSGNVSTRSSIGSDEII RSPFYGNKSTLDVQN				
CRY3BB2:	FHTRLQPGYSGKDSFNYWSGNVETRPSIGSSKTITS PFYGDKSTEPVQK				
CRY3BB:	FHTRLQPGYFGKDSFNYWSGNVETRPSIGSSKTITS PFYGD KSTEPVQK				
CRY3BA:	FHTRLRPGYSGKDSFNYWSGNVETRPSIGSNDTITS PFYGDKSIEPIQK				
CRY3A:	FHTRFQPGYYGNDSFNYWSGNVSTRPSIGSNDIITS PFYGNKSSEPVQN				
	+++++	++++	+++++	++++	+++
	400	410	420	430	
CRY3C:	LEFNGEKVFR A VANGNLAVWPVGTTGGTKIHSGVT KVQFSQYNDRKDEV RT				
CRY3BB2:	LSFDGQKVYRTIANTDVAAPNG---KIYFGVTKVDFSQYDDQKNETST				
CRY3BB:	LSFDGQKVYRTIANTDVAAPNG---KVYLGVTKVDFSQYDDQKNETST				
CRY3BA:	LSFDGQKVYRTIANTDIAFPDG---KIYFGVTKVDFSQYDDQKNETST				
CRY3A:	LEFNGEKVYRAVANTNLAVWPSA---VYSGVTKVEFSQYNDQTDEAST				
	+++	++++++	+++	++++++	+++

FIG. 17B

Annotated Marked-Up Drawings

	440	450	460	470	480
CRY3C:	QTYDSKRNVGGIV-FDSIDQLPPITTDESLEKAYSHQLNYVRCFLLQQGR				
CRY3BB2:	QTYDSKRNNNGHVGQAQDSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRR				
CRY3BB:	QTYDSKRNNNGHVSAQDSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRR				
CRY3BA:	QTYDSKRYNGYLGAQDSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRR				
CRY3A:	QTYDSKRNVGAVS-WDSIDQLPPETTDEPLEKGYSHQLNYVMCFLMQGSR +++++ ++++++ ++++++				
	490	500	510	520	530
CRY3C:	GIIPVFTWTHKSVDFYNTLDSEKITQIPFVKAFILVNSTSVVAGPGFTGG				
CRY3BB2:	GTIPFFTWHRSVDFFNTIDAEEKITQLPVVKAYALSSGASIIEGPGFTGG				
CRY3BB:	GTIPFFTWHRSVDFFNTIDAEEKITQLPVVKAYALSSGASIIEGPGFTGG				
CRY3BA:	GTIPFFTWHRSVDFFNTIDAEEKITQLPVVKAYALSSGASIIEGPGFTGG				
CRY3A:	GTIPVLTWTHKSVDFFNMIDSKKITQLPLVKAYKLQSGASVVAGPRFTGG ++++++ ++++++ ++++ ++++++				
	540	550	560	570	580
CRY3C:	DII-KCT-NGSGLTLYVTAPDLTYSKTYKIRIRYASTSQVRFGIDLGSY				
CRY3BB2:	NLLFLKESSNSIAKFKVTL-NSAALLQRYRVRIRYASTTNLRLFVQNSNN				
CRY3BB:	NLLFLKESSNSIAKFKVTL-NSAALLQRYRVRIRYASTTNLRLFVQNSNN				
CRY3BA:	NLLFLKESSNSIAKFKVTL-NSAALLQRYRVRIRYASTTNLRLFVQNSNN				
CRY3A:	DII-QCTENGSAATIYVTPD--VSYSQKYRARIHYASTSQITFTLSLDGA +++++ +++++++ +++++++ ++++++ ++++++				
	590	600	610	620	630
CRY3C:	THSISYFDKTMDKGNTLTYSFNLSVSRPIEISG-GNKIGVSVGGIGSG				
CRY3BB2:	DFIVIYINKTMNIDDDLTYQTFDLATTNSNMGFSGDTNELIIGAESFVSN				
CRY3BB:	DFLVIYINKTMNKDDDLTYQTFDLATTNSNMGFSGDKNELIIGAESFVSN				
CRY3BA:	DFLVIYINKTMNIDGDLTYQTFDFATSNSNMGFSGDTNDFIIGAESFVSN				
CRY3A:	PFNQYYFDKTINKGDTLTYSFNLASFSTPFELSG--NNLQIGVTGLSAG ++++++ +++++++ ++++ +++++++				
	640	650			
CRY3C:	DEVYIDKIEFIPMD (<i>SEQ ID No:109</i>)				
CRY3BB2:	EKIYIDKIEFIPVQL (<i>SEQ ID No:110</i>)				
CRY3BB:	EKIYIDKIEFIPVQL (<i>SEQ ID No:111</i>)				
CRY3BA:	EKIYIDKIEFIPVQ (<i>SEQ ID No:112</i>)				
CRY3A:	DKVYIDKIEFIPVN (<i>SEQ ID No:113</i>) ++++++				